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WE CLAIM:

1. An isolated DNA molecule which is polymorphic for the alpha (1,2) fucosyltransferase gene 1 in swine.

5 2. An isolated DNA molecule having a nucleotide sequence in accordance with FIG. 1.

3. The isolated DNA molecule of claim 2 wherein adenine is in nucleotide position 307 instead of guanine.

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4. An isolated DNA molecule which is complementary to the nucleotide sequence of claim 2.

15 5. The isolated DNA molecule of claim 2 with a substitution of adenine for guanine in nucleotide position 857.

6. An isolated DNA molecule according to claim 2 with a threonine in nucleotide position 229.

20 7. A portion of the isolated DNA molecule of claim 1 or 2, said portion including the nucleotide sequence that distinguishes *E. coli* colonization resistant from sensitive swine.